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CASES OF COMPOUND FRACTURE OF THE LEG.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—I send you the following cases of compound fracture of the leg, which you are at liberty to publish if you think them of sufficient interest.

CASE I. *Compound comminuted Fracture of the Leg—Cure.*—Levi Bullock, of the town of Solon, in this county, æt. about 45, of intemperate habits, had his leg caught between a stick of timber and a tree on the 25th of June, 1838. Being alone, and a yoke of oxen attached to the stick, in order to liberate himself he was obliged to drive the cattle along until the end of the stick passed beyond the tree. The consequence was a severe compound comminuted fracture, attended with much laceration of the soft parts. I saw him five hours after the accident. On examination I found a fracture of both bones of the leg; tibia about two inches above the ankle-joint; fibula three inches. The foot was turned off at nearly a right angle with the leg; the upper fragment of the tibia protruding about three inches, was broken obliquely from below upwards and outwards; a piece of bone, comprising half the shaft of the tibia and nearly two inches long, was loosely attached to the lower fragment, which was readily removed with the fingers. Several other small portions of bone were found loose, and removed. The laceration extended from the ankle six inches upwards. The skin and muscles were torn and contused, and the wound filled with dirt and leaves. The patient was prepared in his mind to expect that the limb would be amputated, and when I informed him that I felt it my duty to make an attempt to save it, he very readily acquiesced in any method which I should adopt. After carefully cleansing the wound and removing all extraneous matter, the bones were reduced by making moderate extension and counter-extension; the wound was brought as nearly together as the irregular nature of it would admit, with adhesive straps; Scultetus's bandage was applied, and two splints, well padded, reaching from below the ankle to above the knee, were fastened with strong tapes. The leg was laid upon a pillow of chaff, and ordered to be kept constantly wet with spirits and water. A large anodyne was given, with directions to repeat it if required.

I saw him again on the 27th. The anodynes had kept him comfortable; but little sympathetic fever or pain; some starting of the limb while asleep; not much swelling of the limb. Ordered the limb to be kept wet with spirit and water, and a cathartic of sal. epsom. To continue anodynes *pro re nata*.

July 3d. Dressed the limb. The upper part of the wound had healed by the first intention, to the extent of two inches; the lower portion suppurates profusely. Wound looks well; not much swelling; lower portion of tibia disposed to protrude when the dressings are removed. Re-applied the same kind of dressing, except the adhesive plaster, for which the basilicon ointment and lint were used. Constitutional symptoms not severe; is disposed to delirium when not under the influence of opium; but little fever. Low diet, with cooling laxatives. As I lived some distance from my patient, I could not see him as often as was necessary to dress the limb. The patient's wife was therefore instructed to dress it daily, with as little disturbance as possible, by loosening the splints and removing two or three strips of the bandage.

On the 11th I again saw him; found that he had been very restless, with delirium, and had kicked his leg about and tried to get up, saying it was well. He had but little fever; his pulse were weak and the skin pale, with a sunken countenance, and that wild expression of the eye so peculiar in *delirium tremens*. On examining the limb, found the bone protruding two inches; retraction of the foot; the end of the bone was denuded of its periosteum, was dry, and the point irregular. From these circumstances, and the difficulty of keeping the bone reduced, I determined to saw off a portion of it, to the extent of an inch, which was easily accomplished by passing a strip of cloth over the end of the bone as a retractor, while one assistant held the end of the bone with a strong pair of forceps, and another the upper portion by grasping the leg tightly a little below the knee-joint. The bone was quickly removed with the amputating saw, with very little pain or irritation to the patient. The leg was now straightened, and the end of the bone was easily covered by the soft parts. Basilicon ointment and lint applied over the wound. The bandage of strips was put on, and the same splints as tightly applied as was necessary to keep the bone from getting displaced. The patient was ordered a liberal diet, with a moderate use of whiskey (his accustomed beverage), and opium in sufficient quantities to allay pain and quiet irritation; and as the weather was excessively hot, and the flies were troublesome, to prevent their larvæ from getting under the dressings, currier's oil and spirits of turpentine were applied to a cloth which was spread over the limb, which I found effectually prevented the development of these troublesome insects.

19th. Visited him again; found a great improvement in his general appearance. Has not been delirious since last visit; appetite good; pulse stronger; sleeps well nights; suffers but little pain; has reduced the quantity of opium one half; wound healing fast; suppuration diminishing in quantity; swelling in the limb is subsiding. Apply same dressings.

30th. Patient doing well; wound contracting, and nearly filled with healthy granulations; fibula has united; the limb retains its shape when the dressings are off. Same dressings applied; opium discontinued.

August 7th. Patient doing well; but little suppuration; begins to sit up some; sleeps well, and has a voracious appetite.

16th. Is able to go out upon crutches, with the leg tightly done up.

September 20th. Wound nearly healed, with the exception of a small

orifice, which discharges a very little pus; union of tibia quite firm; can bear his weight on it, yet does not attempt to walk; his general health is good. About the first of November he began to walk upon his limb, and has continued well ever since. He is a poor man and labors hard, and since the accident has obtained as high wages as before. The limb is one inch and a half shorter than the other. Some slight exfoliations took place the first year after the injury, but his leg at this time is sound; and with the exception of the shortening, is as serviceable as the other.

CASE II. Compound Fracture of the Leg—Cure.—On the 4th of July, 1839, I was called to see Wm. Smith, an intemperate man, æt. about 50, who had fallen from the staging of a building upon which he was at work, and fractured his leg. I saw him within two hours after the accident; found both bones broken—tibia about two inches above the ankle-joint, fibula about four; the end of the tibia protruded through a laceration on the inside of the leg. The laceration was four inches in length, and parallel with the bone. The end of the bone which protruded was transverse on the inside, and a small portion of the diameter of the bone on the outside, or next the fibula, was detached and had fallen out. The fractured end of the fibula was transverse, as near as could be ascertained. The periosteum was detached from the extreme end of the protruded bone, to the extent of perhaps one fourth of an inch. I removed one small spicula of bone, which was loose, from the wound. There was no dirt or foreign bodies in the wound, and but little hemorrhage. The limb was a little retracted, and the foot everted. After clearing the wound of coagula, the bones were placed in apposition, and the wound brought accurately together with narrow strips of adhesive plaster. Scultetus's bandage was next applied. Two splints, well padded, were placed upon each side of the limb, which reached above the knee and below the ankle; another thin, narrow splint was laid along the top of the leg, the whole secured by strong tapes, and the leg extended upon a pillow. An anodyne of sulphate of morphia was administered.

5th. Visited him, and found he had rested tolerably through the night and was free from fever. The man being poor, it was thought best to remove him to the County Alms House, and accordingly he was placed upon a bed in a sleigh, and drove the team himself, sitting in a reclining position, the distance of about one mile. I assisted in getting him into his room up stairs, examined his leg to see that the dressings were not deranged, placed the limb upon a pillow, and from that time expected my services would cease, as I was not the attending physician at the Alms House.

I heard no more of the case until the 13th of July, when one of the Superintendents called upon me, and requested my attendance at the Alms House that afternoon, for the purpose of amputating, or to assist in amputating, the patient's leg. On my arrival there I found a number of medical gentlemen present, who on examining the limb differed in opinion as to the propriety of amputation. The physicians of the House were of opinion that from the age and habits of the patient, the state of the weather, and apprehensions of fever, amputation was necessary to save his life. The limb at this time was in the following condition. The leg

lay over the double inclined plane, with the bone protruding through the wound; the bone was dark and dry to the extent of an inch or more; the wound gaped from the swelling of the limb, which was highly inflamed nearly to the knee; some healthy granulations filled the upper part of the wound, and covered the bone to some extent; pus of a healthy character issued from beneath the bone. The foot was everted and fallen over, and there was considerable shortening and retraction of the leg. The constitution sympathized but little with the local difficulty. No fever, appetite good, bowels regular, strength good. He suffered a great deal of pain in the leg, especially when it was moved or a jar communicated to the bed. Three of the surgeons in consultation were of the opinion that it was not necessary to amputate, as there were neither local nor constitutional symptoms demanding it; that an effort should be made to save the limb, and for that purpose the piece of bone which protruded should be removed with the saw, and the bones reduced and kept so until union had taken place.

As the consultation could not agree upon any course of treatment, the medical gentlemen retired, and the two physicians of the Alms House continued to attend upon the patient from day to day, until the 23d of July, ten days after the consultation, when the Superintendents of the poor gave the patient liberty to choose his surgeon, or surgeons, and they should be employed to attend him. On that day I received a summons to attend upon the patient, and do whatever the case required. Accordingly I visited the Alms House, and found the patient in nearly the same state as at the consultation. The foot was, perhaps, a little more displaced, and the protruding bone more dark; the wound had healed more at the upper part, and the constitutional symptoms were not bad. With the exception of pain in the wound, he complained but little. The swollen and inflamed condition of the limb rendered reduction of the bone impracticable; and as it was dead, and that portion could be easily removed by the saw, with the assistance of Dr. Joel R. Carpenter, of Homer, a retractor was placed beneath the bone; an assistant then grasped the point of it with a strong pair of lithotomy forceps and held it firm, another assistant held the leg firmly below the knee, while I quickly removed about an inch of the bone with the amputating saw, including all, as near as I could judge, that had lost its vitality.

Very little pain was experienced from the operation; the limb was placed in an easy position, and the dressing deferred until a suitable apparatus could be prepared. On the 24th, Dr. Ashbel Patterson, of Homer, met me at the Alms House, to assist in dressing the leg. After clearing the wound of pus and the larvæ of flies, who had insinuated themselves in great numbers behind the bone, we placed the bones in apposition without any difficulty, brought the foot back to its relative situation, and the bones in a line with each other; a roller was applied to the foot and ankle as high as the wound, then lint spread with basilicon ointment to the wound, and over that Scultetus's bandage, the strips of which could be easily withdrawn; next a carved splint to fit the outside of the foot and leg, reaching as high as the knee-joint, and well padded; another straight splint, cut away at the part where it passed over the wound, and

by which it could be examined without removing it. These splints were fastened to the foot, ankle, and near the knee, by broad strips of cloth, in such a manner as to produce but little constriction or swelling. By this kind of dressing, the wound could be easily examined and cleansed without deranging the splints or fractured ends of the bones. From this time the wound was dressed daily, and it continued to heal without interruption. The patient expressed himself much relieved. No constitutional disturbance arose to interrupt the cure. The fibula united in about 30 days, so that the limb would preserve its form when the splints were removed; but the tibia was a long time in uniting. Some time in the month of November following, the bones had so far united, and the sore so much healed, that the patient left his bed and went upon crutches. He staid at the Alms House during the winter, improving, and the next spring some exfoliation took place and the bone discharged. After this the leg healed, with the exception of one or two small sinuses which barely admitted the point of a probe. In about a year from the time of the injury, his leg was so strong as to enable him to walk upon it, and it continued improving in strength so that he could do a good day's work upon it and travel with ease. It is, of course, an inch or more less in length than the other.

The strong points of interest in this case, are—Were the symptoms, at the time of consultation, such as to justify a resort to amputation? If not, then what course should have been adopted? Was not the removal of the dead portion of bone indicated to facilitate the reduction of the fracture and progress of the cure? Was it contrary to established authority? Would it have been better and more judicious practice to have allowed the bone to remain protruding until exfoliation had taken place, before an attempt was made to replace it? Was it not important that the fibula was kept in place until union of that bone had taken place? Could the fibula unite properly with the limb thus distorted? These are questions which I submit to the profession, without any comments of my own.

A. B. SHIPMAN, M.D., *President of*

Cortlandville, N. Y., Aug. 17, 1841.

the Cortland Med. Soc.

DR. CARPENTER'S PHYSIOLOGY VERSUS REVELATION.

[Communicated for the Boston Medical and Surgical Journal.]

It is my present purpose to show that Dr. Carpenter (whom I have identified as the author of the pretended review of my "Commentaries" in the British and Foreign Medical Review), and the school that maintain the existence of the vital properties in the elements of matter, are necessarily in conflict with Revelation, as with the highest dictates of reason.

"The doctrine," says my reviewer, "which Dr. Carpenter has propounded respecting *vital properties*, and which is essentially the same as that upheld by Dr. Prichard, Dr. Fletcher, Mr. Robertson, and other able writers upon the same side, may be concisely stated as follows:—Certain forms of matter, especially oxygen, hydrogen, carbon and nitrogen, are endowed with properties which do not manifest themselves either in these

elements when uncombined, or in those combinations of them which the chemist effects by *ordinary* means. But they do manifest themselves when they are united into those peculiar compounds which are known as organic, and when these compounds have been submitted to the process which is termed organization. We ASSERT, then, that the very act of organization causes the materials acted on to exhibit properties quite distinct from those ordinarily termed physical and chemical, which properties cannot be caused to manifest themselves in any other way than by the series of operations just described. No one can say that the properties do not exist in a *dormant* state because they do not manifest themselves to him." "We argue that they [the vital properties] were as much present in the elements as any of their other properties, which only exhibit themselves in certain conditions."—(*Review*, April, 1841, pp. 389, 390.—*My Italics*, throughout.)

And thus Dr. Carpenter, in his "Principles of General and Comparative Physiology," who must abide his own principle of analogy.

"It cannot, then, be logically correct, to speak of vital properties as *superadded* to organized matter, although an apparent analogy has been drawn from physical science in support of the assumption." "If an analogy exist between the two processes, which can scarcely be denied, it leads us to the belief, that JUST as the MAGNETIC POWERS are developed in IRON, when the metallic mass is placed in a condition to manifest them, so the very ACT OF ORGANIZATION develops VITAL POWERS in the tissues which IT CONSTRUCTS [!!] For no one can assert that there does not exist in every uncombined particle of matter, which is capable of being assimilated, the ability to exhibit vital actions, when placed in the requisite conditions."—(*Carp. Princip.*, p. 137.—1839). The reviewer has the same parallel. Is there the most remote "analogy"?

There occur in my late "Examination" of the foregoing review the following extracts and remarks.

"But, we take this opportunity," says the reviewer, "of stating that our belief in the general proposition, that 'plants or animals of a high degree of organization are capable of producing from various parts of their tissues beings corresponding to those of the inferior orders of their kingdoms,' has recently been much strengthened by additional evidence."—(*Rev.*, p. 393.) What is the evidence?—See *Comm.*, Vol. 2, p. 130.

"Dr. Carpenter is of the same opinion. Thus:—

"It appears very difficult, and indeed almost impossible, without some admission of this kind, to account for the production of *parasitic* plants and animals in the interior of others. That their germs have been conveyed from without into the situations where they are developed, must be held as a very forced supposition,' &c.—(*Carp. Princip.*, p. 395.)

"Suppose it so;—is not the organization of the *parasite* as absolutely specific as that of the more complete animal—it may be beast, it may be man? Where, then, must this doctrine conduct our philosophers? *Professions*, in such a case, are nothing; and they are nothing when God is confounded with nature.—(See *Exam.*, p. 10.) We must look at the inevitable consequence of the principle; whilst Dr. Carpenter and the reviewer have also laid the broad foundation, that all the vital properties

there are, exist in the elements of matter, and the former goes so far as to say that—'We may believe that there exists in all matter a tendency to become organized' (Carp. Princip., p. 394), and that the elements may be organized by the hand of man'!—(Exam., p. 40.) Compare with Tiedemann's doctrine in *Comm.*, Vol. 2, p. 124."—(Examination, &c., p. 43.)

Doubtless, many will consider my proposition already made out; but there is yet remaining another and *conclusive* demonstration. It is admitted, by our premises, that there is nothing to show the existence of vital properties in the elements of matter, and that they are only manifested when the elements become organized. The right is assumed, however, of maintaining that they do so exist, and that it will not be surrendered till its opponents prove the self-evident absurdity. This postulate, it will be seen in the first place, is subversive of all philosophy; and that La Place, with a far greater show of reason, insisted that the nebular state of the universe, which he supposes (*Exposition du Système du Monde*, l. 5me, c. 6), had the fundamental requisite for the Platonic doctrine of creation,—that is to say, a rotation upon its axis, and thus carried out a fascinating system which lays the foundation of the universe in the principle of spontaneity. La Place thus saw the necessity of avowing atheism, which he did without subterfuge, and with a manly responsibility. We need not, therefore, controvert his nebular doctrine. Our next step is the admitted fact that the phenomena of the vital properties are *sui generis*—that they are not manifested by inorganic matter, but are peculiar to organic. According to our opponents, however, this constituted no proof of the non-existence of the vital properties in the elements of matter, and they therefore rest upon the *assumption* of such existence.

But the manifestations of the *soul* are not more peculiar to man than the phenomena of organic life, and it follows from our premises, by irresistible analogy, that the *soul* must, equally with the vital properties, exist in the elements of matter, and like those properties undergoes development by the organization of the elements; and that our opponents, upon their own ground, must assume this as fact till it can be otherwise demonstrated, and by the same process of inductive philosophy which they require as to the non-existence of the vital properties in the elements of matter. We thus arrive at a proof which no sophistry can invalidate, that the Edinburgh Journal was sound in its conclusion, that Dr. Carpenter has inculcated in his "Principles" the doctrines of infidelity.—(See *Edinburgh Medical and Surgical Journal*, Jan., 1840.) And so, exactly, of my reviewer.

And again, Dr. Carpenter, and my reviewer, maintain that when man dies and is resolved into the elements of matter, his vital properties continue to exist in those elements; and that when these elements become a part of the organization of inferior animals or of plants, his vital properties share the same destiny. It follows, therefore, that the soul must observe the same rule of construction—appearing under the manifestations of instinct in animals, and in plants according to the nature of their organization.

On the contrary, those, who entertain the belief of a Creative Power, and of the immateriality and immortality of the soul, and that it was su-

peradded to man after the creation of his organized structure, as set forth in Revelation, by assuming the truth of this proposition, will find in the foregoing argument a full demonstration that the vital properties must have been equally *superadded* as a distinct creation; since the manifestations of the properties of life are not less various, remarkable, and peculiar to organic beings than those of the soul. The analogy is as good in one case as in the other, and is confirmed by all the evidences of nature. It is a species of analogy, too, rather more to the purposes of philosophy than that which Dr. Carpenter assumes between the development of "magnetic powers" by placing a bar of iron in an erect position, and the development of "vital properties" by the *conversion* of the elements of matter into *organized tissues* (so replete with the highest evidences of design), and then extorting from this extraordinary assumption the conclusion, that the "vital properties" like the "magnetic powers" exist in the elements of matter. Our author cannot, at best, escape from his own logic; and the proof, upon his own ground of a coincident analogy, must be valid, or otherwise, according to the strength of the analogy. The reviewer has exactly the same argument as to the "magnetic powers," and therefore falls under the same category.

Dr. Carpenter, in his defence of himself against the "charges" of the Edinburgh Journal, quotes the opinions of his own school to justify his doctrines. But, why not defend them himself? Why this habitual dependence upon others? Why not take the natural course of the present writer? Those are questions, too, on which something more than the authority of opinion is wanted; nor will Dr. Carpenter longer contend "that to none of their arguments has any formal reply been made." Our author says farther, also, "it will be easy for me, should they [the charges] ever be repeated, to bring forward a body of testimony, which, with those unaccustomed to inquiries of this kind, will weigh more than argument."—(*See British and Foreign Med. Rev. April, 1840.*) Of course, our author will now "bring forward the body of testimony"; but since it is not to possess the merit of "argument," it may be expected that it will not be a reiteration of the opinions of Dr. Prichard, Dr. Fletcher, and Mr. Robertson, which have been already produced by Dr. Carpenter in his "Defence," in his "Principles," and in his review of my "Commentaries."

The late unexampled misrepresentation and injustice with which I have been treated by the British and Foreign, and Medico-Chirurgical Reviews, and which I have exposed in a pamphlet rather than to avail myself of the courtesy of the American medical press, appear to my mind to justify the addition to this communication of a few extracts from my "Commentaries," touching the utterly unfounded charge of a disbelief in the *immortality* of the soul, preferred, apparently, by the junior editor of the Medico-Chirurgical Review, and whose very mode of misrepresenting my faith upon this question convicts him of the alleged infidelity, as it does of the most unaccountable disregard of truth. And yet I would not that this statement should imply that I am annoyed, since it is made as an inevitable dictate of truth, and for the purpose of its advancement. I would, also, farther premise, that no little part of my Essay on the Vital

Powers is devoted to a proof of the *immateriality* and *immortality* of the soul, as connected with my demonstration of the specific existence of the *vital principle*. An exemplification of this fact is exhibited in my "Examination," &c., and I shall now subjoin an example which illustrates the whole object of my "Appendix on Spontaneous Generation," as it does of the religious tone which is infused into the whole work. I have no apprehension that justice will not ultimately come, and in all the measure that I can desire from my cotemporaries; but I am, nevertheless, disposed to anticipate the slow march of truth, and to test, upon the foregoing question at least, *and on my own native soil*, a principle which has been attributed to man at all ages as a proof of his moral obliquity.

Having gone over, in my "Appendix on Spontaneous Generation," with my physiological evidence against this doctrine, and that of *materialism*, I have many remarks of the following import.

"The manifestations of mind, by admission, appertain to the brain, nor can any other part of the body produce a single act of intellection. But, the brain enjoys, also, in the highest degree, the powers and functions that belong to other complex organs,—has its circulation, nutrition, secretion, and presides, more or less, over the organic functions of other viscera. All these are manifestly *organic* functions, which have their analogies in various other parts. There is *something*, however, *superadded* to this organ, to which there is nothing analogous in the rest of organized matter; whilst all other organs have the plainest analogies in their several functions. It is clear, therefore, that the phenomena of mind are the result of the *combined action* of this *something* (which rational philosophers call the *soul*) and the material part. The same arguments which are employed in another place (Essay on the Vital Powers) to show that the powers of life are *something*, and not a mere matter of fancy, are equally applicable for demonstrating the real existence of the *soul* as contradistinguished from *nothing*; and we think the proof is the same, and as palpable, in one case as in the other." [It will be seen that I have arrived at the same result in this article by a new process of induction, both as it respects the soul and the vital principle. Other new methods appear in my "Examination," &c., pp. 33, 39, 40. Can they be set aside?]

"Although we are disposed to give a liberal construction to the Holy Scriptures, we think there should be no violation of any direct statements which they make, however they may appear incapable of explanation, or adverse to the researches, or the learning, the philosophy, or the ambition of man. In our investigation of the works of nature, it should ever be a primary object to render our discoveries subservient to the Revelation which respects creation, and the extension of true philosophy will surely follow. And, should we now and then meet with apparent obscurities, they should be rather regarded as tending to establish our general position, since it is God alone who is the Author of mysteries; and whenever they have been clearly expounded, they have always appeared consistent with whatever had been known of His Providence, and the most obvious import of Revelation. 'It is the glory of God,' says Bacon, 'to conceal a thing, and the glory of the king to find it out.' But, above all, does it behoove the geologist, the physician, the chemist, and all others who are

employed in the investigation and interpretation of nature, to be faithful to the lofty trust which is committed to their care. They should be cautious of breaking up the great chain of creation, and of reducing the noble parts to the most ignoble. Least of all can any philosophy endure which is opposed to the fundamental acts of creation, because it would not then be founded upon nature. Whoever, therefore, may be an unbeliever, will find it for his interest as a philosopher, to admit the Attributes of a Creative Power. We are fully sensible, however, that, in the ardor to account satisfactorily for anomalous events, we may unintentionally misinterpret the established order of nature," &c.

"The discussion with which we began this Appendix naturally conducted us to that of '*materialism*.' The subjects being intrinsically of a popular nature, we may, for a moment, descend from the altar of science and approach the precincts of the pulpit. This we do for the purpose of saying that physiology should become an element in the education of clergymen. The enemy of religion, or the well meaning but mistaken cosmographer, takes advantage of your want of familiarity with this department of knowledge. They tell you that the living system has no forces peculiar to itself, and that it is wholly amenable to such as rule in the inorganic world; and they conduct you at last, by these premises, to an almost irresistible admission that living beings may be created by their power. And we have already shown you, when thus prepared, how easy a matter it is to spread before you, without greatly shocking the religious sense, a plan of creation which ascribes the origin of animals to '*spontaneous generation*,' as it is called in preference to '*chance*.'

"The progress towards infidelity is always slow,—at least apparently so in a Christian land; and, whenever the consummation may take place, regard for reputation, and a more successful propagation of the doctrine, will surround it with reservations, insinuating analogies, and perhaps with some show of religion, either for the affected purpose of impartiality, or to furnish a loop-hole of retreat, should the enemy crowd hard. The steps are gradual from the incipient errors in natural philosophy to a disbelief in the Mosaic record of creation. When we have ultimately reached this brink of the precipice, there is but one dreadful plunge, and we are then in the vortex of atheism. We may begin, as we have said, with a simple denial of the living powers of organized beings, and it will become, at last, an easy argument upon this, and analogous premises, that the Almighty had but very little, if any agency, in the most sublime part of existences. But, when you shall look at physiology in its true aspect, you will see that the living, organized kingdoms are governed by laws totally different from any thing that is known of the inorganic. This will assure you that there can be no '*spontaneous generation*,'—that the forces of physics can have had no lot in the creation or in the perpetuity of animals; but, on the contrary, it is their work to *lay waste the whole fabric of creation*. You come, then, to enjoy the undisturbed conviction, that the creation of every original species of animals was a special act of God, and that they are, in every vital sense, contradistinguished from inorganic matter. And when you shall have thus studied nature as she is, you will find her in perfect harmony with your religious impressions; nor can she fail to exalt your religious fervor.

"Let *philosophy* interrogate nature to its fullest satiety, under the direction of its heaven-born principles; but, let it be consistent, and maintain its dignity. And should it sometimes, as it must in its wide range of nature, come in contact with miracles,—this is its limit, contented that it begins at the confines of creation; yet, still may it stretch into the regions of eternity,—past and TO COME; but now it is employed in its nobler work of sacrificing its relations to second causes, and in establishing relations with the FIRST CAUSE OF ALL." (*Comm.*, Vol. 2, pp. 132—140.)

Such, then, is a farther exhibition of the religious doctrines which it has been one object of my "Commentaries" to inculcate, and which pervade the work on Geology, announced in my late "Examination."

In taking my leave, at least for the present, of the foregoing reviewers, Dr. Carpenter will indulge me with *borrowing* a sentiment from *his* Defence. Thus:—

"I trust that I have now sufficiently vindicated myself from the principal charges which the reviewer has brought against me; and that I have proved his incompetency to pronounce an opinion upon the merits of my work. More than this it is not my desire to urge. And I shall conclude with again expressing my regret at the necessity I have felt to make animadversions that so seriously affect the character of a Journal which has rendered great services to medical science, and to which the profession has been *accustomed* to look up with respect." (*Dr. Carpenter.*)

If, then, the Edinburgh Journal should be visited by the retribution which is here invoked, for the just exercise of its high prerogative, what should be the destiny of Journals which have endeavored, by an unmitigated series of misrepresentations in relation to my work, to impede the march of those principles upon which the Almighty has constituted the order of nature, and upon which He has engrafted the highest destinies of man,—and especially where the pages of one have been also shown to be encumbered with methodical plagiarism, alike offensive to reason, to truth, and morality.

Being disposed to abide the issue of the deliberate judgment of mankind, I shall incorporate the foregoing remarks with my "Commentaries," along with my "Examination."

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New York, August 9, 1841.

DR. INGALLS'S LETTER ON YELLOW FEVER.

[Continued from page 64.]

ANY purgative compound of which calomel is a constituent, administered on the first intimation of the approach of the yellow fever, if it procure a thorough evacuation of the bowels, may, in many instances, like other cathartics, prove prophylactic.

Calomel acts on the system primarily through the medium of the mucous membrane of the hollow organs and skin, and possesses the properties of a purgative, a sialagogue, and a remedial virtue which may become

manifest without causing any perceptible alteration in the functions. In whatever mode the preparations of quicksilver may be administered, either by rubbing the gums with calomel; or by sprinkling it on an ulcerative surface; or by giving it in repeated, or even in a single, cathartic doses; or by inunction of the unguentum hydrargyri; or by the application of emplastrum hydrargyri; the mercurial action may be diffused throughout the whole extent of the mucous and cutaneous tissues; and, either by their separate or conjoint operation, the following results may ensue, namely,—dejections; salivation; and an efficient and sometimes a curative influence on the constitution, without the occurrence of any sensible change in the functions. To these extraordinary effects if we add their efficacy, as a specific, in one of the most loathsome, and, if neglected, destructive maladies, it is not strange, that a medicine endowed with such various and active properties, should induce practitioners to consider its remedial power applicable in the treatment of numerous diseases, even of a diversified character. The position, that one disease may be cured by the substitution of another,* and therefore, in almost every lesion of an important organ, provided a salivation be once established, a cure will ensue, has had no inconsiderable agency in bringing mercury into general use. From its known activity, calomel, regardless of its liability of subjecting the whole system to a mercurial action, has been employed more than any other article in the materia medica, in purgative formulæ. Thus, under whatever form preparations of quicksilver may be administered, the mucous and cutaneous tissues, throughout their whole extent, are subjected to the mercurial action; and, of course, the mucous membrane of the *pori bilarii* will partake of the same influence. In 1798, calomel was given with very great freedom as an evacuant;

* This position, so far as syphilis is concerned, is an approximation to homœopathy; but with the view of curing this disease, we should not be content with administering mercury in infinitesimal doses, unless we should be convinced, as homœopaths aver, that by attenuation and dilution (a) they acquire a strength equal to those which are employed by allopathists. It is established, beyond all controversy, this disease is radically cured by adopting the allopathic course of remedies; and, if the same result be attained by infinitesimally small doses, it will be a mere matter of indifference which mode of treatment we might select.

It has been ascertained in two instances, that balsam copaiva and cubebs produced symptoms, "nearly," resembling those of the disease for which they were prescribed; still, I believe, that these are not remedies allopathists employ under similar circumstances.

It would be, undoubtedly, highly judicious to administer in infinitesimal doses the therapeutic agents possessing deleterious properties of the highest grade.

The homœopathic globules possess activity, as one globule of *nux vomica* was given after long intervals with sensible benefit; but on repeating it daily, the deleterious property of the narcotic soon began to be developed to such a degree, as to render it necessary to suspend its use. Again, in a case of dropsy the sixteenth part of a globule of arsenic was prescribed, to be taken daily; after a few doses, absorption ensued.

It seems mistakes may be made in the selection of remedies, which, however, would be of no consequence if the globules were innocuous. The following quotation is made from Hahnemann's *Organon*:—"Subsequent to the year 1801, a purple miliary fever came from the west of Europe, which physicians confounded with scarlatina, although the signs of these two affections are entirely different, and aconite is the curative and preservative remedy of the first, and belladonna of the second; while the former always assumes the epidemic character, the latter is mostly sporadic." It seems, also, homœopathic remedies are not found against every disease, for he adds:—"Of late years, both these two affections appear to have been combined into a species of eruptive fever, against which neither of these two remedies were found perfectly homœopathic."

It is proper the homœopathic mode of treating disease should undergo a thorough investigation by a committee, and the result of their deliberation made public. Had this course been pursued with the Thomsonian practice, it would have been of great service to the community. I shall continue to examine into the merits of the Hahnemannian practice, as I have already done with regard to the Thomsonian.

(a) *Hic agendi modus vulgo attenuatio aut dilutio, rectius explicatio aut extensio virium medicarum appellari debet, perinde ac calor latens e corporibus aut terendo exauditur aut quibusdam misturæ chemicis vigore prius incognito erumpit.*—*Pharmacopœia Homœopathica*, Editi F. F. QUIR, M.D., Lond. 1834, p. 2.

and no doubt, so far as its cathartic property, by removing from the bowels the colluvies as fast as it is generated, might be attended with advantage; but this is more than counterbalanced by the irritation of the inner membrane of the digestive tube and the *pori biliarii* that will follow.

It was the prevalent opinion, that in the acute stage of all inflammatory affections, the irritation arising from the operation of calomel was pernicious. I found this opinion to accord with my experience in the cases of yellow fever that came under my care. Dr. Wood, in the United States Dispensary, has the following remarks: "As a purgative, calomel owes its chief value to its tendency to the liver, the secretory functions of which it powerfully stimulates." He moreover remarks, that "it is peculiarly useful in the commencement of bilious fevers." It would be presumption in me to pretend to controvert this assertion, as the position of Dr. Wood affords him an ample opportunity of testing the merit of every article employed in the treatment of this class of diseases. In the passive—or chronic—stage, indeed, of the inflammation of the tissues concerned in the secretory function of the liver, calomel in cathartic doses is of very great utility; in this northern climate, one portion of ten grains alone has removed the hepatic affection, and restored the patient to health. May not the relief arising from evacuating the contents of the digestive canal, have the tendency to make us overlook the irritation which calomel may produce, when the mucous membrane of the hollow organs is in a state of inflammation?

[To be continued.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, SEPTEMBER 8, 1841.

NEW MEDICAL DISPENSARY OF THE UNIVERSITY OF NEW YORK.

FROM time to time we notice very interesting descriptions of the transactions in this newly established institution, and which are well calculated to attract the attention of the profession. It has been a mistaken policy in the management of medical schools and hospitals in the United States, to keep everything so hermetically excluded from the public eye, that those who would derive essential advantages from them, stand in awe of them, as though Eleusinian mysteries were practised within their terrific precincts, to which none but the regularly initiated could with propriety be admitted. Such institutions have too often not been open to the whole mass of diseased humanity on those generous terms of indiscriminate philanthropy which their object ostensibly indicates,—the lame, the halt and the blind being only admitted to the fountain of health through the condescending permission of an annual subscriber, an owner of shares in the capital stock, or by beseeching the grace of a trustee; and they are consequently not regarded with interest, nor ordinarily sustained by kind and proper motives. Within a few weeks the Dispensary of the University of New York has been created, and the welkin rings with its

brilliant achievements. It is certain that the true principle of conducting a charity of this kind has at length been discovered. The diseased multitude rush to its portals—for there are no embarrassments in the way. Each case is examined, and all the relief is afforded which experience, the art of surgery, or the science of medicine, can afford. Without reference to their place of abode, or their condition in society, those who seek relief receive immediate attention. While the new Dispensary is thus conferring direct blessing, without an expectation of fee or pecuniary reward, it tends to the certain individual reputation of those who immediately control its destiny.—Were a similar institution organized in Boston or in either of our other large cities, we venture to assert that the numbers which would visit it would at once convince those embarking in the benevolent enterprise, that generosity to the poor is a positive gain to the giver.

Board of Health in New Orleans.—A short time since, a regularly-constituted Board of Health was established in New Orleans, of which Edw. H. Barton, M.D., an eminent physician, and who will at once give character to the Board, has been elected the first President. Instead of guessing, as heretofore, at the mortality of that city, during those exciting periods when rumor gives death the reputation of wielding that instrument of destruction, the yellow fever, with fearful energy, till the mercantile world stands in awe of New Orleans as the grave of all who have the temerity to adventure within its limits, exact statistical returns are now to be made by every practitioner, and each day's official bulletin will relieve the public mind at a distance. If it should ultimately be shown, as there is some reason to anticipate, that New Orleans is not that awful Golgotha it has the unenviable reputation of being, a new impulse will be given to its trade, and its inhabitants will speedily reap the benefits accruing from the institution of a well-conducted health police.

The last public statement made by the Board respecting the yellow fever, shows it to be on the increase.

Progress of Epidemic Animal Magnetism.—Such were the symptoms, we understand, at Portland, the other day, that the epidemic must be raging there by this time. All that was necessary to give full effect to animal magnetism, short of a "committee of investigation," was near at hand, viz. the celebrated Robert H. Collyer, and Fred, the paddy, well disciplined for show. Augusta, Hallowell, Gardiner, and in fact all the principal towns in Maine whose inhabitants are likely to pay ninepence at the door, may expect a visit soon.—Boston is now remarkably quiet—the report of the immortal associates having satisfied the knowing ones that there is a vast difference betwixt tweedle dee and tweedle dum.

Medicinal Springs of Virginia.—These springs are undoubtedly as remarkable as any in the world; yet we know less of the chemical composition of their waters, than we do of those resorted to by invalids on the old continents.—What has become of Prof. Rodgers, of William and Mary's College, who was to have given the public an analysis of the various springs of Virginia, years ago? A culpable piece of management seems to have been practised by Prof. R., with an expectation, probably, of giv-

ing more interest to a certain treatise he is elaborating, than it would otherwise possess. The march of science demands that he should at once break silence on this subject, even if it does anticipate the pages of a new book.

Progress of Dental Science in America.—Under this head a writer in the London *Lancet* speaks very favorably of the praiseworthy exertions recently made in this country by some of our leading surgeon-dentists. It is well known that these exertions have resulted in the organization of the "Society of Dental Surgeons," and the commencement of the "Journal of Dental Science," both of which are justly extolled by the writer alluded to.

TO CORRESPONDENTS.—A Report from the Mass. General Hospital, and other papers, are unavoidably omitted this week.

ERRATUM.—In last week's Journal, page 64, Dr. Ebenezer Stone's name was erroneously printed "Stow."

Number of deaths in Boston for the week ending Sept. 4th, 58.—Males, 27; Females, 31.—Stillborn, 4. Of consumption, 12—dropsy, 1—debility, 3—dropsy on the brain, 1—bowel complaint, 6—scarlet fever, 2—dysentery, 6—infantile, 2—fits, 2—teething, 1—croup, 3—old age, 2—cholera infantum, 6—canker in the bowels, 2—cholera morbus, 1—inflammation of the bowels, 1—typhus fever, 1—cramp in the stomach, 1—gangrene, 1—erysipelas, 1—intemperance, 1—disease of the heart, 1—lung fever, 1.

MEDICAL INSTRUCTION.

THE subscriber, Physician and Surgeon to the Marine Hospital, Chelsea, will receive pupils and give personal instruction in the various branches of medical science. He will devote to them such time, and afford them such opportunities and facilities for study and practice, as are essential for a thorough and practical medical education. The medical and surgical practice of the Hospital will be constantly open to his students, and clinical instruction, on the cases as they occur, will be given. Abundant facilities for obtaining a correct knowledge of materia medica and the dispensing of medicines will be afforded.—For terms, and more particular information, application can be made at the Hospital or by letter.

GEORGE W. OTIS, JR.

Chelsea, September, 1841.

Sep. 8—eoptf.

UNIVERSITY OF THE STATE OF NEW YORK,

COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

THE annual course of Lectures for the session of 1841 and 42 will commence on the first Monday of November, 1841, and continue until the first of March, 1842.

J. AUGUSTINE SMITH, M.D., Prof. of Physiology.

ALEX. H. STEVENS, M.D., Emeritus Prof. of Surgery.

JOSEPH MATHER SMITH, M.D., Prof. of the Theory and Practice of Physic and Clinical Medicine.

JOHN B. BECK, M.D., Prof. of Materia Medica and Medical Jurisprudence.

JOHN TORREY, M.D., Prof. of Chemistry and Botany.

ROBERT WATTS, JR., M.D., Prof. of General, Special and Pathological Anatomy.

WILLARD PARKER, M.D., Prof. of the Principles and Practice of Surgery and Surgical Anatomy.

CHANDLER R. GILMAN, M.D., Prof. of Obstetrics and the Diseases of Women and Children.

JAMES QUACKENBOSCH, M.D., Demonstrator of Anatomy.

Matriculation fee, \$5. Fee for the full course of lectures, \$108. Dissecting and Demonstration ticket, \$5. Graduation fee, \$25. Good board may be procured in this city for from \$2.50 to \$3.00 per week.

N. B.—A preliminary course of lectures will be delivered by the Faculty during the month of October, commencing on the first Monday. This course will be free to the students of the College. The dissecting rooms will be opened for the season on the first Monday of October.

New York, 15th June, 1841.

Je 23—eptf

ALBANY MEDICAL COLLEGE.

THE next annual session of Lectures will commence on the first Tuesday in November, 1841, and continue sixteen weeks.

ALDEN MARCH, M.D., Prof. of Surgery.

JAMES McNAUGHTON, M.D., Prof. Theory and Practice of Medicine.

T. ROMEYN BECK, M.D., Prof. Materia Medica.

EBENEZER EMMONS, M.D., Prof. Obstetrics and Natural History.

LEWIS C. BECK, M.D., Prof. Chemistry and Pharmacy.

JAMES H. ARMSBY, M.D., Prof. Anatomy.

THOMAS HUN, M.D., Prof. Institutes of Medicine.

AMOS DEAN, Esq., Prof. Medical Jurisprudence.

Fees for all the courses, \$70. Graduation fee, \$20. Matriculation fee, \$5. Boarding from \$2 to \$3.50 per week.

ALDEN MARCH, M.D., *President of Faculty.*
J. H. ARMSBY, M.D., *Registrar.*

Aug. 11—6w

COLUMBIAN COLLEGE, DISTRICT OF COLUMBIA.

THE Lectures in the Medical Department of this Institution will commence on the first Monday in November, annually, and continue until the 1st of March.

During this period, full courses will be delivered on the various branches of medicine by

THOMAS SEWALL, M.D., Professor of Pathology, and the Practice of Medicine.

HARVEY LINDSLEY, M.D., Professor of Obstetrics, and the Diseases of Women and Children.

THOMAS MILLER, M.D., Professor of Anatomy and Physiology.

JOHN M. THOMAS, M.D., Professor of Materia Medica and Therapeutics.

J. FREDERICK MAY, M.D., Professor of Surgery; late Professor of Surgery in the University of Maryland.

FREDERICK HALL, M.D., Professor of Chemistry and Pharmacy.

SAMUEL C. SMOOT, M.D., Demonstrator of Anatomy.

As there are many young men of talent and worth in different parts of our country who, from restricted circumstances, are unable to avail themselves of the benefit of public lectures, the Professors have resolved to admit, gratuitously, two such students from each of the States, and one from each of the Territories. In order, however, to guard against individuals whose education and character do not qualify them to become useful members of the profession, the selection is placed in the hands of the Senators and Delegates of Congress, each of whom has the right to select one student from his respective State or Territory, and whose certificate of selection will be a passport to all the lectures, by paying only, on entering the school, the usual matriculating fee of five dollars.

The entire expense, for a Course of Lectures by all the Professors, is \$70. Dissecting Ticket, \$10; optional with the student.

Good board can be procured at from three to four dollars per week.

THOMAS MILLER, M.D.

Washington, May 1, 1841.

My 12—1antN

Dean of the Faculty.

MEDICAL LECTURES IN BOSTON.

THESE Lectures begin annually in the Medical College, in Mason street, Boston, on the first Wednesday in November, and continue four months.

	Fees.
Anatomy and Operative Surgery, by - - -	DR. WARREN, \$15.00
Midwifery and Med. Jurisprudence, by - - -	DR. CHANNING, 10.00
Materia Medica, by - - -	DR. BIGELOW, 10.00
Principles of Surgery and Clinical Surgery, by - - -	DR. HAYWARD, 10.00
Chemistry, by - - -	DR. WEBSTER, 15.00
Theory and Practice of Physic and Clinical Medicine, by - - -	DRS. WARE and BIGELOW, 15.00

At a meeting of the Medical Faculty, May 29, 1841, it was *Voted*, That hereafter two full courses of lectures in this school be required of candidates for the degree of Doctor in Medicine. But for one of these courses a substitute may be received in a course of lectures at any other medical institution in which the number of teachers is not less than six, and in which the time occupied by lectures is not less than four months.

Boston, August 21, 1841.

S 1—eptN

WALTER CHANNING, Dean.

UNIVERSITY OF PENNSYLVANIA—MEDICAL DEPARTMENT.

SESSION 1841—42.

THE Lectures will commence on Monday, the 1st of November, and be continued, under the following arrangement, to the middle of March ensuing:—

Practice and Theory of Medicine, by - - -	NATHANIEL CHAPMAN, M.D.
Chemistry, by - - -	ROBERT HARE, M.D.
Surgery, by - - -	WILLIAM GIBSON, M.D.
Anatomy, by - - -	WILLIAM E. HORNER, M.D.
Institutes of Medicine, by - - -	SAMUEL JACKSON, M.D.
Materia Medica and Pharmacy, by - - -	GEORGE B. WOOD, M.D.
Obstetrics and the Diseases of Women and Children, by - - -	HUGH L. HODGE, M.D.
Clinical Lectures on Medicine, by - - -	W. W. GERHARD, M.D. and
“ “ on Surgery, by - - -	DRS. GIBSON and HORNER,

Will be delivered at the Philadelphia Hospital (Blockley). Students are also admitted to the Clinical Instruction at the Pennsylvania Hospital, in the city.

Aug. 20, 1841.

A 25—Dec1

W. E. HORNER, Dean of the Med. Faculty, 263 Chesnut st., Philadelphia.

GENEVA MEDICAL COLLEGE.

THE Medical Lectures will commence on the first Tuesday in October, and continue sixteen weeks.

Institutes and Practice of Medicine, by - - -	T. SPENCER, M.D., Geneva.
Obstetrics and Medical Jurisprudence, by - - -	C. B. COVENTRY, M.D., Utica.
Anatomy and Physiology, by - - -	JAMES WEBSTER, M.D., Rochester.
Chemistry and Pharmacy, by - - -	JAMES HADLEY, M.D., Fairfield.
Materia Medica and General Pathology, by - - -	JOHN DELAMATER, M.D., Sarat. Springs.
Principles and Practice of Surgery, by - - -	FRANK H. HAMILTON, M.D., Rochester.
Demonstrator, - - -	SUMNER RHOADES, M.D. Geneva.

Geneva, August 17, 1841.

S 1—eptO

C. B. COVENTRY, Dean.
JAMES HADLEY, Registrar.

THE BOSTON MEDICAL AND SURGICAL JOURNAL is published every Wednesday, by D. CLAPP, JR., at 134 Washington St., corner of Franklin St., to whom all communications must be addressed, post paid. It is also published in Monthly Parts, with a printed cover. There are two volumes each year. J. V. C. SMITH, M.D., Editor. Price \$3.00 a year in advance, \$3.50 after three months, or \$4.00 if not paid within the year. Two copies to the same address, for \$5.00 a year, in advance. Orders from a distance must be accompanied by payment in advance or satisfactory reference. Postage the same as for a newspaper.